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EXAMINER

MILLER, BRANDON J

ART UNIT PAPER NUMBER

2617

DATE MAILED: 05/01/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

10/829,473

Applicant(s)

LAPPETELAINEN ET AL.

Examiner

Brandon J. Miller

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 22 April 2004.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-21 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-21 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 22 April 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
- 1) ☒ Certified copies of the priority documents have been received.
  - 2) ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - 3) ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)  | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

**DETAILED ACTION**

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Feuchtinger in view of Deschenes.

Regarding claim 1 Feuchtinger teaches a method of communicating in a wireless telecommunications system including a subscriber terminal and an infrastructure (see paragraph [0008] and FIG. 1, radio telephone terminal relates to subscriber terminal and relay station relates to infrastructure). Feuchtinger teaches connecting the subscriber terminal to an infrastructure over a wireless interface (see paragraph [0032], link L1 relates to wireless interface). Feuchtinger teaches the subscriber terminal holding a subscriber identity in the wireless telecommunications system (see paragraph [0028]). Feuchtinger teaches connecting the subscriber terminal to at least one sub-terminal over a proximity wireless interface, the at least one sub-terminal using the subscriber identity of the subscriber terminal (see paragraphs [0028] & [0032]). Feuchtinger teaches requesting a radio link from the subscriber terminal, the radio link being directed from the infrastructure to the at least one sub-terminal (see paragraphs [0032], radio link L2, relates to radio link from the subscriber terminal, the radio link being directed from the infrastructure to the at least one sub-terminal). Feuchtinger does not specifically teach generating signaling parameters for controlling the radio link; and

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communicating at least one of the signaling parameters between the sub-terminal and the infrastructure via the subscriber terminal. Feuchtinger does teach signaling via the radio links (see paragraph [0031]). Deschenes teaches signaling protocols for controlling a radio link; and communicating at least one signaling protocol between a terminal and an infrastructure (see paragraph 0036)). It would have been obvious to one of ordinary skill in the art at the time the invention was made to make the device adapt to include generating signaling parameters for controlling the radio link; and communicating at least one of the signaling parameters between the sub-terminal and the infrastructure via the subscriber terminal because the signaling in Feuchtinger can include parameters and this would allow for improved communication between subscriber terminals in a radio communication environment.

Regarding claim 2 Feuchtinger and Deschenes teaches a device as recited in claim 1 except for generating at least some of the signaling parameters in the sub-terminal. Feuchtinger does teach signaling via a radio link to a sub-terminal (see paragraph [0031]). Deschenes teaches generating signaling protocols between a terminal and an infrastructure (see paragraph 0036)). It would have been obvious to one of ordinary skill in the art at the time the invention was made to make the device adapt to include generating at least some of the signaling parameters in the sub-terminal because the signaling in Feuchtinger can include parameters and this would allow for improved communication between subscriber terminals in a radio communication environment.

Regarding claim 3 Feuchtinger and Deschenes teaches a device as recited in claim 1 except for communicating at least some of the signaling parameters between the sub-terminal and the infrastructure over a wireless interface between the infrastructure and the sub-terminal. Feuchtinger does teach signaling via a wireless interface to a sub-terminal (see paragraph

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[0031]). Deschenes teaches wirelessly communicating signaling protocols between a terminal and an infrastructure (see paragraph 0036)). It would have been obvious to one of ordinary skill in the art at the time the invention was made to make the device adapt to include communicating at least some of the signaling parameters between the sub-terminal and the infrastructure over a wireless interface between the infrastructure and the sub-terminal because the signaling in Feuchtinger can include parameters and this would allow for improved communication between subscriber terminals in a radio communication environment.

Regarding claim 4 Deschenes teaches providing a radio link according to at least some of the signaling protocols (see paragraph [0036]).

Regarding claim 5 Feuchtinger teaches a proximity wireless interface (see paragraph [0032]). Feuchtinger teaches signaling via the radio links in communication with the subscriber terminal, the sub-terminal, and the infrastructure (see paragraph [0031]). Feuchtinger does not specifically teach proximity signaling parameters for controlling the proximity wireless interface, communicating proximity signaling parameters, and configuring the proximity wireless interface according to proximity signaling parameters. Deschenes teaches signaling protocols for controlling a radio link; and communicating at least one signaling protocol (see paragraph 0036)). It would have been obvious to one of ordinary skill in the art at the time the invention was made to make the device adapt to include proximity signaling parameters for controlling the proximity wireless interface, communicating proximity signaling parameters, and configuring the proximity wireless interface according to proximity signaling parameters because the signaling in Feuchtinger can include parameters and this would allow for improved communication between subscriber terminals in a radio communication environment.

Regarding claim 6 Feuchtinger teaches a terminal system of a wireless telecommunication system, the terminal system comprising an infrastructure and a subscriber terminal (see paragraph [0008] and FIG. 1, radio telephone terminal relates to subscriber terminal and relay station relates to infrastructure). Feuchtinger teaches connecting the subscriber terminal to an infrastructure (see paragraph [0032], link L1 relates to wireless interface). Feuchtinger teaches holding a subscriber identity in the wireless telecommunications system (see paragraph [0028]). Feuchtinger teaches at least one sub-terminal using the subscriber identity of the subscriber terminal and providing a radio link directed from the infrastructure to the at least sub-terminal (see paragraphs [0028] & [0032]). Feuchtinger teaches requesting a radio link from the subscriber terminal, the radio link being directed from the infrastructure to the at least one sub-terminal (see paragraphs [0032], radio link L2, relates to radio link from the subscriber terminal, the radio link being directed from the infrastructure to the at least one sub-terminal). Feuchtinger does not specifically teach a radio link being controlled by signaling parameters, communicating at least one of the signaling parameters between the sub-terminal and the infrastructure via the subscriber terminal, and communicating the at least one of the signaling parameters between the subscriber terminal and the at least one sub-terminal over a proximity wireless interface. Feuchtinger does teach signaling via the radio links (see paragraph [0031]). Feuchtinger does teach signaling between the subscriber terminal and the sub-terminal over a proximity wireless interface (see paragraph [0031]). Deschenes teaches signaling protocols for controlling a radio link; and communicating at least one signaling protocol between a terminal and an infrastructure (see paragraph [0036]). It would have been obvious to one of ordinary skill in the art at the time the invention was made to make the device

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adapt to include a radio link being controlled by signaling parameters, communicating at least one of the signaling parameters between the sub-terminal and the infrastructure via the subscriber terminal, and communicating the at least one of the signaling parameters between the subscriber terminal and the at least one sub-terminal over a proximity wireless interface because the signaling in Feuchtinger can include parameters and this would allow for improved communication between subscriber terminals in a radio communication environment.

Regarding claim 7 Deschenes teaches generating signaling parameters (see paragraph [0036]).

Regarding claim 8 Feuchtinger and Deschenes teach a device as recited in claim 3 and is rejected given the same reasoning as above.

Regarding claim 9 Deschenes teaches configuring receiving means according to at least some of the signaling protocols (see paragraph [0036]).

Regarding claim 10 Feuchtinger and Deschenes teach a device as recited in claim 6 except for second signaling for communicating proximity signaling parameters between the subscriber terminal and the infrastructure, the proximity signaling parameters being generated in the infrastructure; and configuring the proximity signaling according to at least some of the proximity signaling parameters. Feuchtinger does teach a proximity wireless interface (see paragraph [0032]). Feuchtinger does teach signaling via the radio links in communication with the subscriber terminal, the sub-terminal, and the infrastructure (see paragraph [0031]).

Deschenes does teach second signaling between a terminal and an infrastructure and configuring the signaling according to at least some of the signaling protocols (see paragraph [0036]). It would have been obvious to one of ordinary skill in the art at the time the invention was made to

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make the device adapt to include second signaling for communicating proximity signaling parameters between the subscriber terminal and the infrastructure, the proximity signaling parameters being generated in the infrastructure; and configuring the proximity signaling according to at least some of the proximity signaling parameters because the signaling in Feuchtinger can include parameters and this would allow for improved communication between subscriber terminals in a radio communication environment.

Regarding claim 11 Feuchtinger teaches a subscriber terminal of a wireless telecommunication system including an infrastructure (see paragraph [0008] and FIG. 1, radio telephone terminal relates to subscriber terminal and relay station relates to infrastructure). Feuchtinger teaches connecting the subscriber terminal to an infrastructure (see paragraph [0032], link L1 relates to wireless interface). Feuchtinger teaches holding a subscriber identity in the wireless telecommunications system (see paragraph [0028]). Feuchtinger teaches requesting a radio link from the subscriber terminal, the radio link being directed from the infrastructure to the at least one sub-terminal (see paragraphs [0032], radio link L2, relates to radio link from the subscriber terminal, the radio link being directed from the infrastructure to the at least one sub-terminal). Feuchtinger teaches the at least one sub-terminal using the subscriber identity of the subscriber terminal (see paragraphs [0028] & [0032]). Feuchtinger does not specifically teach a radio link being controlled by signaling parameters, communicating at least one of the signaling parameters with the at least one sub-terminal over a proximity wireless interface, and communicating at least one of the signaling parameters between the sub-terminal and the infrastructure via the subscriber terminal. Feuchtinger does teach signaling via the radio links (see paragraph [0031]). Feuchtinger does teach signaling between the subscriber terminal and



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the sub-terminal over a proximity wireless interface (see paragraph [0031]). Deschenes teaches signaling protocols for controlling a radio link; and communicating at least one signaling protocol between a terminal and an infrastructure (see paragraph 0036)). It would have been obvious to one of ordinary skill in the art at the time the invention was made to make the device adapt to include a radio link being controlled by signaling parameters, communicating at least one of the signaling parameters with the at least one sub-terminal over a proximity wireless interface, and communicating at least one of the signaling parameters between the sub-terminal and the infrastructure via the subscriber terminal because signaling in Feuchtinger can include parameters and this would allow for improved communication between subscriber terminals in a radio communication environment.

Regarding claim 12 Feuchtinger and Deschenes teach a device as recited in claim 10 and is rejected given the same reasoning as above.

Regarding claim 13 Feuchtinger teaches a sub-terminal of a wireless telecommunication system comprising an infrastructure (see abstract, paragraph [0008] and FIG. 1, radio telephone terminal relates to subscriber terminal and relay station relates to infrastructure). Feuchtinger teaches connecting the subscriber terminal to an infrastructure (see paragraph [0032], link L1 relates to wireless interface). Feuchtinger teaches holding a subscriber identity in the wireless telecommunications system (see paragraph [0028]). Feuchtinger teaches the at least one sub-terminal using the subscriber identity of the subscriber terminal (see paragraphs [0028] & [0032]). Feuchtinger teaches providing a radio link being directed from the infrastructure to a sub-terminal (see paragraphs [0032], radio link L2, relates to radio link from the subscriber terminal, the radio link being directed from the infrastructure to the at least one sub-terminal).

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Feuchtinger does not specifically teach a radio link being controlled by signaling parameters, and communicating at least one of the signaling parameters with the at least one sub-terminal over a proximity wireless interface. Feuchtinger does teach signaling via the radio links (see paragraph [0031]). Feuchtinger does teach signaling between the subscriber terminal and the sub-terminal over a proximity wireless interface (see paragraph [0031]). Deschenes teaches signaling protocols for controlling a radio link; and communicating at least one signaling protocol between a terminal and an infrastructure (see paragraph 0036]). It would have been obvious to one of ordinary skill in the art at the time the invention was made to make the device adapt to include a radio link being controlled by signaling parameters, and communicating at least one of the signaling parameters with the at least one sub-terminal over a proximity wireless interface because the signaling in Feuchtinger can include parameters and this would allow for improved communication between subscriber terminals in a radio communication environment.

Regarding claim 14 Feuchtinger and Deschenes teach a device as recited in claim 7 and is rejected given the same reasoning as above.

Regarding claim 15 Feuchtinger and Deschenes teach a device as recited in claim 8 and is rejected given the same reasoning as above.

Regarding claim 16 Feuchtinger and Deschenes teach a device as recited in claim 9 and is rejected given the same reasoning as above.

Regarding claim 17 Feuchtinger and Deschenes teach a device as recited in claim 6 except for configuring the proximity signaling according to at least some of the proximity signaling parameters received from the subscriber terminal. Feuchtinger does teach a proximity wireless interface (see paragraph [0032]). Feuchtinger does teach signaling via the radio links in

communication with the subscriber terminal, the sub-terminal, and the infrastructure (see paragraph [0031]). Deschenes does teach s configuring the signaling according to at least some of the signaling protocols (see paragraph [0036]). It would have been obvious to one of ordinary skill in the art at the time the invention was made to make the device adapt to include configuring the proximity signaling according to at least some of the proximity signaling parameters received from the subscriber terminal because the signaling in Feuchtinger can include parameters and this would allow for improved communication between subscriber terminals in a radio communication environment.

Regarding claim 18 Feuchtinger teaches a radio resource control system for controlling radio resources in a wireless telecommunication system including an infrastructure and a subscriber terminal connected to the infrastructure (see paragraph [0008] and FIG. 1, radio telephone terminal relates to subscriber terminal and relay station relates to infrastructure). Feuchtinger teaches holding a subscriber identity in the wireless telecommunications system (see paragraph [0028]). Feuchtinger teaches controlling access of at least one sub-terminal to the infrastructure on the basis of an access request from a subscriber terminal, the at least one sub-terminal using the subscriber identity of the subscriber terminal (see paragraphs [0028] & [0033]). Feuchtinger teaches controlling a radio link from the infrastructure to the at least one sub-terminal (see paragraphs [0033], radio link L3, relates to radio link from the infrastructure to the at least one sub-terminal). Feuchtinger does not specifically teach a radio link being controlled by signaling parameters, communicating at least one of the signaling parameters between the sub-terminal and the infrastructure, and communicating the at least one of the signaling parameters between the subscriber terminal and the at least one sub-terminal over a

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proximity wireless interface. Feuchtinger does teach signaling via the radio links (see paragraph [0031]). Feuchtinger does teach signaling between the subscriber terminal, the sub-terminal, and infrastructure over a proximity wireless interface (see paragraph [0031]). Deschenes teaches signaling protocols for controlling a radio link; and communicating at least one signaling protocol between a terminal and an infrastructure (see paragraph 0036]). It would have been obvious to one of ordinary skill in the art at the time the invention was made to make the device adapt to include a radio link being controlled by signaling parameters, communicating at least one of the signaling parameters between the sub-terminal and the infrastructure, and communicating the at least one of the signaling parameters between the subscriber terminal and the at least one sub-terminal over a proximity wireless interface because the signaling in Feuchtinger can include parameters and this would allow for improved communication between subscriber terminals in a radio communication environment.

Regarding claim 19 Feuchtinger and Deschenes teach a device as recited in claim 18 except for controlling the radio link on the basis of the signaling parameters generated in the sub-terminal. Deschenes teaches signaling protocols for controlling a radio link and communicating at least one signaling protocol (see paragraph 0036]). It would have been obvious to one of ordinary skill in the art at the time the invention was made to make the device adapt to include controlling the radio link on the basis of the signaling parameters generated in the sub-terminal because the signaling in Feuchtinger can include parameters and this would allow for improved communication between subscriber terminals in a radio communication environment.

Regarding claim 20 Feuchtinger and Deschenes teach a device as recited in claim 3 and is rejected given the same reasoning as above.

Regarding claim 21 Feuchtinger and Deschenes teach a device as recited in claim 6 except for controlling the proximity wireless interface on the basis of proximity signaling parameters; and second signaling for communicating at least some of the proximity signaling parameters with the subscriber terminal. Feuchtinger does teach a proximity wireless interface (see paragraph [0032]). Feuchtinger does teach signaling via the radio links in communication with the subscriber terminal, the sub-terminal, and the infrastructure (see paragraph [0031]). Deschenes does teach second signaling between a terminal and an infrastructure and configuring the signaling according to at least some of the signaling protocols (see paragraph [0036]). It would have been obvious to one of ordinary skill in the art at the time the invention was made to make the device adapt to include controlling the proximity wireless interface on the basis of proximity signaling parameters; and second signaling for communicating at least some of the proximity signaling parameters with the subscriber terminal because the signaling in Feuchtinger can include parameters and this would allow for improved communication between subscriber terminals in a radio communication environment.

### ***Claim Objections***

Claims 11 and 13 are objected to because of the following informalities:

Regarding claim 11, lines 1-2, it is unclear as to whether the subscriber terminal includes the infrastructure or the whether the wireless telecommunication system includes the infrastructure.

Regarding claim 13, lines 1-3, it is unclear as to whether the sub-terminal comprises the infrastructure and a subscriber terminal connected to the infrastructure and holding a subscriber

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identity or whether the wireless telecommunication system comprises the infrastructure and a subscriber terminal connected to the infrastructure and holding a subscriber identity.

Appropriate correction is required.

### ***Conclusion***

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Vincent et al. Pub. No.: US 2001/0052858 A1 discloses an access system to an item of automatic control equipment via a wireless proximity network.

Muthuswamy et al. Pub. No.: US 2004/0204151 A1 discloses a method and apparatus for advising a user of a wireless device as to a connection status thereof.

Olson Pub. No.: US 2003/00191807 A1 discloses a user dynamically definable centralized notification between portable devices.

Goss et al. Pub. No.: US 2003/0003900 A1 discloses a proximity-based call forwarding.

Gleeson Pub. No.: US 2002/0136174 A1 discloses a communication device having proximity controlled transmission.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Brandon J. Miller whose telephone number is 571-272-7869.

The examiner can normally be reached on Mon.-Fri. 8:00 am to 5:00 pm.


If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, George Eng can be reached on 571-272-7495. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

A handwritten signature in black ink, appearing to be "B. J. Lee".

April 26, 2006

A handwritten signature in black ink, appearing to be "George Eng".  
**GEORGE ENG**  
**SUPERVISORY PATENT EXAMINER**